

WHAT IS CLAIMED IS:

1. An information system for processing digital information including contents information inserted with a digital watermark information and identification information for the contents information, said
5 information system comprising:

a first verification device which detects said digital watermark information from said digital information, and verifies validity of use of said
10 contents information when the digital watermark information is detected; and

a second verification device which verifies the validity of the use of said contents information by using the identification information when the validity
15 is confirmed by the first verification device.

2. The information system according to claim 1, further comprising:

a registration device which registers the identification information for said contents
20 information whose validity has been confirmed by said first verification device,

wherein said second verification device verifies the validity of said contents information with respect to the contents information corresponding to the
25 identification information registered by said registration device instead of said first verification device.

3. The information system according to claim 2,
wherein said registration device associates and
registers, in a table, said identification information,
a random number value for randomly designating sector
information included in the contents information
corresponding to the identification information, and
the sector information in a table.

4. The information system according to claim 1,
wherein said second verification device designates
partial information included in the contents
information corresponding to said identification
information at random, without executing detection
processing of said digital watermark information, and
verifies the validity of the use of the contents
information based on a collation result of the partial
information.

5. The information system according to claim 1,
further comprising:

a registration device which associates and
registers the identification information for said
contents information whose validity has been confirmed
by said first verification device, a random number
value for designating sector information included in
the contents information corresponding to the
identification information at random, and the sector
information in a table,

wherein said second verification device refers

to said table to search for the random number value
and the sector information associated with the
identification information which agrees with the
identification information for the contents information
5 as a verification object without executing detection
processing of said digital watermark information, and

acquires the sector information designated by the
random number value from the contents information as
the verification object, and verifies the validity of
10 the use of the contents information as the verification
object based on a collation result of the sector
information with the sector information registered in
said table.

6. The information system according to claim 1,
15 further comprising:

a ripping device which executes ripping of said
contents information whose validity has been confirmed
by said first verification device or said second
verification device.

20 7. A method of protecting digital information
including contents information inserted with a digital
watermark information and identification information
for the contents information in an information system,
the method comprising:

25 detecting said digital watermark information from
said digital information, and using said digital
watermark information to verify validity of use of said

contents information; and

using said identification information included in
the digital information whose validity has been
confirmed using said digital watermark information and
5 verifying the validity of the use of said contents
information.

8. The method according to claim 7, further
comprising:

10 registering said identification information
included in the digital information whose validity
has been confirmed using said digital watermark
information; and

15 using said identification information to verify
the validity of the contents information as a
verification object without using said digital
watermark information, when the identification
information for the contents information as the
verification object is registered.

20 9. The method according to claim 7, further
comprising:

25 using said identification information included in
the digital information whose validity has been
confirmed using said digital watermark information,
designating partial information included in the
contents information as a verification object at
random, and verifying the validity of the use of said
contents information based on a collation result of the

partial information.

10. The method according to claim 7, further comprising:

5 associating and registering the identification information for said contents information whose validity has been confirmed using said digital watermark information, a random number value for designating sector information included in the contents information corresponding to the identification
10 information at random, and the sector information in a table;

referring to said table to search for the random number value and the sector information associated with the identification information which agrees with the
15 identification information for the contents information as a verification object without executing detection processing of said digital watermark information; and

acquiring the sector information designated by the random number value from the contents information as
20 the verification object, and verifying the validity of the use of the contents information as the verification object based on a collation result of the sector information with the sector information registered in said table.

25 11. An information system for processing digital information including contents information inserted with a digital watermark information and identification

information for the contents information, said digital information system comprising:

5 a detection device to set a data region for a predetermined number of sectors at random in a format in which the data region of said contents information corresponding to said identification information is divided into a plurality of sectors, to determine sector information for the number of sectors as a detection object range, and to detect said digital watermark information; and

10 a verification device which uses said digital watermark information detected by said detection device to verify validity of said contents information.

12. The information system according to claim 11, further comprising:

15 a random number generation device which generates a random number value,

20 wherein said detection device designates a sector address using the random number value, and detects said digital watermark information from the detection object range of the contents information for the predetermined number of sectors in which the sector address is determined as a head sector.

25 13. The information system according to claim 12, wherein said detection device designates the sector address by the random number value, when said random number value exceeds a predetermined threshold value,

and detects said digital watermark information from the detection object range of the contents information for the predetermined number of sectors in which the sector address is determined as the head sector.

5 14. The information system according to claim 11, further comprising:

 a ripping device to execute ripping of said contents information whose validity has been confirmed by said verification device.

10 15. A method of protecting digital information including contents information inserted with a digital watermark information and identification information for the contents information in a digital information system, the method comprising:

15 setting a data region for a predetermined number of sectors at random in a format in which the data region of said contents information corresponding to said identification information is divided into a plurality of sectors, and determining the sector
20 information for the number of sectors as a detection object range;

 detecting said digital watermark information from said detection object range; and

 using said digital watermark information to verify
25 validity of use of said contents information.

 16. The method according to claim 15, further comprising:

generating a random number value; and

designating a sector address by the random number value, and detecting said digital watermark information from said detection object range for the predetermined number of sectors in which the sector address is determined as a head sector.

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